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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,689	06/13/2001	Robert D. Fields	H10276/KNM	4306

1333 7590 07/18/2006

PATENT LEGAL STAFF  
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EXAMINER

NOTE, JANIS L

ART UNIT	PAPER NUMBER
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1756

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/880,689

Applicant(s)

FIELDS ET AL.

Examiner

Janis L. Dote

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 2,5-7,9-11,13-16,18-20,22-29,32,33,36,38-41,45 and 46 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 2,5-7,9-11,13-16,18-20,22-27,32,33,36,38-41,45 and 46 is/are rejected.
- 7) ☒ Claim(s) 28 and 29 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 May 2006 is/are: a) ☐ accepted or b) ☒ ~~objected to~~ <sup>NOT ACCEPTED</sup> by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_

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1. The examiner acknowledges the cancellation of claims 4, 17, 30, and 35 set forth in the amendment filed on May 30, 2006. Claims 2, 5-7, 9-11, 13-16, 18-20, 22-29, 32, 33, 36, 38-41, 45, and 46 are pending.

2. The rejection of claims 4, 17, 30, and 35 under 35 U.S.C. 112, first paragraph, set forth in the office action mailed on Feb. 6, 2006, paragraph 6, has been mooted by the cancellation of claims 4, 17, 30, and 35 set forth in the amendment filed on May 30, 2006.

The prior art rejection of claims 4, 17, 30, and 35 under 35 U.S.C. 102(e)/103(a) and under 35 U.S.C. 102(a)/103(a), set forth in the office action mailed on Feb. 6, 2006, paragraphs 10 and 15, have been mooted by the cancellation of claims 4, 17, 30, and 35 set forth in the amendment filed on May 30, 2006.

3. The replacement drawing sheets, received on May 30, 2006, are unacceptable for the reasons discussed infra. Accordingly, the replacement drawing sheets have not been entered.

The replacement drawing sheets are unacceptable under 35 U.S.C. 132(a) because they introduce new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The

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added material which is not supported by the original disclosure is as follows:

The replacement drawing sheets for Figs. 7 and 8 define the terms "NTO," "LTO," and "HTO" as "normal takeout," "low takeout," and "high takeout," respectively.

The originally filed specification at page 26, lines 12-15, states that the X axis in Figs. 7 and 8 "reflects the amount of toner use occurring during the series of copying. For instance, NTO would represent a normal use of developer while HTO would represent a high amount of developer used and LTO would represent a low amount of developer used." The originally filed specification does not define the terms "NTO," "LTO," and "HTO" as a "takeout" as now described in Figs. 7 and 8.

4. The drawings are objected to because the drawings in Figs. 7 and 8 filed on Oct. 5, 2001, do not identify the y-axis of the graphs. See the originally filed drawings in Figs. 7 and 8 filed on Jun. 13, 2001, which label the y-axis as "charge/mass ( $\mu\text{C/g}$ )."

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the

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appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Applicants' arguments filed on May 30, 2006, have been fully considered but they are not persuasive.

Applicants assert that the replacement drawing sheets filed on May 30, 2006, overcome the objection.

However, for the reasons discussed in paragraph 3 above, the replacement drawing sheets filed on May 30, 2006, were deemed to be not acceptable, and therefore, they have not been entered. Accordingly, the objection stand.

5. The term "2'/10' MECCA charge ratio" recited in instant claims 40 and 46 is defined as the ratio of the level of charge obtained after 2 minutes of charging the toner to the level of charge obtained after 10 minutes of charging, where the charge is determined in a MECCA device. See the instant specification, page 19, lines 15-21, and page 22, lines 1-15.

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6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

7. The reference US 6,692,880 B2 (Fields'880) has an effective filing date of May 14, 2001, which is before the filing date of Jun. 13, 2001, of the instant application. The disclosure cited in Fields'880 has antecedent basis in the US provisional application No. 60/290,707 in the paragraph bridging pages 11 and 12, and at pages 2, 12, 14 and 21-23.

8. Claims 2, 5-7, 14, 16, 23, 25-27, 32, 33, 36, 38-41, 45, and 46 are rejected under 35 U.S.C. 102(e) as anticipated by US 6,692,880 B2 (Fields'880), as evidenced by: (1) the US provisional application 60/290,707 (Application'707); (2) the KODAK Material Safety Data Sheet for the product SB77XL DRY, revised on Dec. 08, 2004; (3) ACS File registry number 7631-86-9; and (4) applicants' admission at page 3, lines 13-15, and page 3, line 21, to page 4, line 8, and in Table 1 at page 22 of the instant specification (applicants' admission I).

Fields'880 exemplifies a developer comprising a magnetic carrier and toner particles. The toner particles comprise 88.9 wt% of a crosslinked styrene-butylacrylate copolymer

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associated with the tradename SB77XL, produced by Eastman Kodak, 6.2 wt% of carbon black, 1.5 wt% of an organo iron complex charge control agent associated with the tradename T77, and 2.0 wt% of a polyethylene wax. The toner particles are surface treated with 0.10 wt% of hydrophobic silica associated with the tradename R972 silica, obtained from Nippon Aerosil. See Fields'880, col. 12, lines 10-20 and 45-51, and Table 3 at col. 13, example 8; and Application'707, page 21, lines 10-13, page 22, lines 13-16, and Table 3 at page 23, example 8.

The Fields'880 amount of 88.9 wt% of the crosslinked styrene-acrylate copolymer associated with the tradename SB77XL, produced by Eastman Kodak, is within the range of "about 80 wt% to about 95 wt%" recited in instant claim 33, which depends on independent claim 40. The amount of 88.9 wt% meets the amount of "about 90 wt%" recited in instant claim 14, which depends on independent claim 46. The term "about" admits variation. There is no evidence on the present record showing that the amount of "about 90 wt%" recited in instant claim 14 is patentably distinct from the Fields'880 amount of 88.9 wt%. The Fields'880 amount of 1.5 wt% of the organo iron complex charge control agent associated with the tradename T77 is within the range of "about 1 wt% to about 2.5 wt%" recited in instant claim 33. The amount of 1.5 wt% of the organo iron complex charge control

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agent meets the amount of "about 1.8 wt%" recited in instant claim 14. There is no evidence on the present record showing that the amount of "about 1.8 wt%" is patentably distinct from the Fields'880 amount of 1.5 wt%. The Fields'880 amount of 0.10 wt% of the hydrophobic silica is within the ranges of "about 0.05 wt% to about 5.0 wt%" recited in instant claim 33. The amount of 0.10 wt% meets the amount of "about 0.2 wt%" recited in instant claim 14. There is no evidence on the present record showing that the amount of "about 0.2 wt%" is patentably distinct from the Fields'880 amount of 0.10 wt%. See Fields'880, col. 12, lines 10-20, and Table 3 at col. 13, example 8; and Application'707, page 21, lines 10-13, and Table 3 at page 23, example 8.

After mixing the toner particles with the magnetic carrier for 2 minutes, the toner particles had a MECCA charge to mass ratio ( $Q/m$ ) of  $-27.0 \mu\text{C/g}$ , which is within the numerical range of  $-20$  to about  $-30 \mu\text{C/g}$  recited in instant claims 40 and 46. After mixing the toner particles with the magnetic carrier for 10 minutes, the toner particles had a MECCA  $Q/m$  of  $-37.0 \mu\text{C/g}$ . The charge ratio of the  $Q/m$  at 2 minutes to the  $Q/m$  at 10 minutes is 0.73. Fields'880, col. 12, lines 57-63, and Table 3, example 8; and Application'707, paragraph bridging pages 22 and 23, and Table 3, example 8. The Fields'880 charge



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ratio of the Q/m at 2 minutes to the Q/m at 10 minutes of 0.73 meets the lower limit, "about 0.9," in the range "about 0.9 to about 1.1" recited in instant claims 40 and 46. The term "about" admits variation. There is no evidence on the present record showing that the charge ratio "about 0.9" is patentably distinct from the Fields'880 charge ratio of 0.73.

Fields'880 does not expressly disclose that its toner binder resin comprises silica or colloidal silica as recited in instant claims 40 and 46, and in claim 32, which depends from claim 40. However, as discussed above, the Fields'880 toner particles meet the compositional limitations recited in the instant claims, but for the disclosure that the toner resin comprises silica or colloidal silica. For the reasons discussed above, the Fields'880 toner particles meet the charge properties recited in the instant claims. In addition, Fields'880 discloses that the toner particles have "stable triboelectric properties." Fields'880, col. 1, lines 34-37; and Application'707, page 2, lines 22-23. That property is the property sought by applicants. The instant application teaches that the presence of colloidal silica or silica particles in the toner resin leads to toner "stable triboelectric charge levels independent of relative humidity and which are consistent over time" (page 3, lines 13-15, and page 3, line 21, to page 4,

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line 8, of the instant specification). Furthermore, the Fields'880 toner resin comprises the crosslinked styrene-acrylate copolymer associated with the tradename SB77XL produced by Eastman Kodak, which is the same tradename/toner binder resin used in the inventive examples of the instant specification. The instant specification does not explicitly identify the source of the colloidal silica or silica in the toner particles exemplified in the inventive examples. See the instant specification, Table 1 at page 22. The KODAK Material Safety Data sheet (MSDS) for the product SB77XL states that the product comprises silica, which is identified with the CAS-No 7631-86-9. The ACS file registry number 7631-86-9 states that another name for silica is "colloidal silica." See page 8 of the ACS File registry number 7631-86-9 printout. Although the MSDS has a revision date of Dec. 8, 2004, which is after the filing date of Fields'880, the product SB77XL was utilized in Fields'880, which has an effective filing date of May 14, 2001, and in the instant specification which has a filing date of Jun. 13, 2001. When, as here, the inventive examples in the instant specification, which are said to have all of the properties required of the claimed composition, are silent as to the origin of the particular colloidal silica or silica, but share a common component with at least one of the references, i.e., SB77XL, an

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Eastman Kodak resin, the presumption becomes strong that the toner binder resin is the source of the "missing component," in this case, the colloidal silica or silica. Surely, applicants are in the best position to identify the source of the colloidal silica or silica in their inventive examples. Moreover, because the toner binder resin in the reference is an Eastman Kodak material and because the reference also shares common inventors with the instant application, applicants are also in the best position to verify the presence (or absence) of colloidal silica or silica in the toner binder resin of the reference.

Thus, based on the above facts, it is reasonable to presume that the toner particles in example 8 of Fields'880 comprise the silica or colloidal silica as recited in instant claims. The burden is on applicants to prove otherwise.

Fitzgerald, supra.

Finally, Fields'880 teaches that the magnetic carrier can comprise preferably strontium ferrite particles coated with a polymeric coating. Fields'880, col. 6, lines 47-57, and col. 8, lines 14-25; and Application'707, page 12, lines 2-4, and page 14, lines 7-13. Thus, the Fields'880 magnetic carrier meets the carrier compositional limitations recited in instant claims 25-27.

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9. Claims 9-11, 13, 15, 18-20, 22, and 24 are rejected under 35 U.S.C. 102(e) as anticipated by Fields'880, as evidenced by: (1) Application'707; (2) the KODAK Material Safety Data Sheet for the product SB77XL DRY, revised on Dec. 08, 2004; (3) ACS File registry number 7631-86-9; and (4) applicants' admission I.

Fields'880, as evidenced by Application'707, the other cited references, and applicants' admission I, discloses a developer as described in paragraph 8 above, which is incorporated herein by reference.

The Fields'880 amount of the polyethylene wax, 2.0 wt%, is within the range of "about 0.1 wt% to about 10 wt%" based on the weight of the toner particles recited in instant claims 13 and 22. The amount of 2.0 wt% meets the limitation "about 1.8 wt%" recited in instant claims 15 and 24. There is no evidence on the present record showing that the amount of "about 1.8 wt%" is patentably distinct from the Fields'880 amount of 2.0 wt%.

For the reasons discussed in paragraph 8, supra, it is reasonable to presume that the toner particles in example 8 of Fields'880 comprise the silica as recited in instant claims. The burden is on applicants to prove otherwise. Fitzgerald, supra.

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Claims 9-11, 13, 15, 18-20, 22, and 24 are written in product-by-process format. Fields'880 does not disclose that the cross-linked styrene-acrylate copolymer is made by a "limited coalescence" process as recited in the instant claims. However, as discussed above, the Fields'880 copolymer meets the compositional limitations recited in the instant claims. Accordingly, the Fields'880 copolymer appears to be the same or substantially the same as the toner resin made by the "limited coalescence" process recited in the instant claims. The burden is on applicants to prove otherwise. In re Marosi, 218 USPQ 289 (Fed. Cir. 1983); In re Thorpe, 227 USPQ 964 (Fed. Cir. 1985); MPEP 2113.

10. Applicants' arguments filed on May 30, 2006, with respect to the rejections set forth in paragraphs 8 and 9 above have been fully considered but they are not persuasive.

Applicants assert that the showing in the Rule 131 declaration filed on May 30, 2006, which was executed by Robert D. Fields on May 24, 2006, overcomes the rejections over Fields'880 set forth in paragraphs 8 and 9 above.

The declaration filed on May 30, 2006, under 37 CFR 1.131 has been considered but is ineffective to overcome the Fields'880 reference for the following reasons:

(1) The Rule 131 declaration does not state that the date of completion of the subject matter recited in the instant claims was established in this country or a NAFTA or a WTO member country. (37 CFR 1.131(a), third and fourth sentences.)

(2) The Rule 131 declaration was not made by all of the named inventors. See MPEP 715.04.I. (A) and (B). There is no evidence on the present record to show that "less than all named inventors of the application invented the subject matter of the claims or claims under rejection."

(3) The evidence submitted is insufficient to establish a reduction to practice of the invention in this country or a NAFTA or WTO member country prior to the effective date of the Fields'880 reference because the showings in the evidence are not commensurate in scope with the subject matter recited in the instant claims for the following reasons:

(3a) The evidence in the Notebook HD0013, pages 122 and 129 and in Notebook A00593, page 115, does not show that the exemplified toner resin comprises silica particles as required in instant independent claim 40. Nor does the evidence show that the toner resin comprises colloidal silica particles as required in instant claims 32, which depends from claim 40. Nor does the evidence show that the toner resin comprises silica in the amount of "about 0.1 wt% to about 0.5 wt% . . . based on the

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weight of toner particles" required in instant claims 13, 22, 33 and 38, which depend from claim 40.

(3b) The evidence in the Notebook HD0013, pages 122 and 129 and in Notebook A00593, page 115, does not show that the exemplified toner resin comprises "colloidal silica particles that are not in a charged state and are present in an amount of about 0.1 weight % to about 0.5 weight %, based on the weight of toner particles" as required in instant independent claim 46. Nor does the evidence show that the toner resin comprises colloidal silica particles in the amount of "about 0.2 wt% to about 0.3 wt%, based on the weight of toner particles" required in instant claims 14, 15, 23, and 24, which depend from claim 46.

(3c) The evidence in the Notebook HD0013, pages 122 and 129 and in Notebook A00593, page 115, does not show that the exemplified toner resin is prepared by "a limited coalescence reaction" as required in instant claims 9, 13, 18, and 22, which depend from claim 40, and as required in instant claims 10, 11, 15, 19, 20, and 24, which depend from claim 46.

(3d) The evidence in the Notebook HD0013, pages 122 and 129 and in Notebook A00593, page 115, does not show that the exemplified magnetic carrier particles comprise ferrite particles as required in instant claim 25, which depend from

claim 40. Nor does not evidence show that the magnetic carrier particles comprise strontium ferrite particles as required in instant claims 26 and 27, which ultimately depend from claim 40.

Thus, the evidence on the present record does not appear to show that applicants had possession of toner particles and developers recited in the instant claims prior to the effective date of the Fields'880 reference.

Accordingly, the Rule 131 declaration filed on May 30, 2006, is ineffective to overcome the Fields'880 reference. The rejections set forth in paragraphs 8 and 9 above stand.

11. Claims 28 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Fields'880, alone, does not teach a developer comprising toner particles and a magnetic carrier as recited in instant claims 28 and 29.

Moreover, for the reasons discussed in the rejection under 35 U.S.C. 103(a) set forth in the office action mailed on Feb. 23, 2005, paragraph 13, it would have been obvious for a person having ordinary skill in the art to use a magnetic carrier as recited in instant claims 28 and 29 as the magnetic



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carrier in the developer disclosed by Fields'880. However, Fields'880 is not prior art under 35 U.S.C. 103(c) for the reasons discussed in the office action mailed on Aug. 19, 2005, paragraph 3.

12. **THIS ACTION IS MADE FINAL.** Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Janis L. Dote whose telephone number is (571) 272-1382. The examiner can normally be reached Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's acting supervisor, Mr. Nam Nguyen, can be reached on (571) 272-1342. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry regarding papers not received regarding this communication or earlier communications should be directed to Supervisory Application Examiner Ms. Claudia Sullivan, whose telephone number is (571) 272-1052.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

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information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

*Janis L. Dote*  
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Jul. 9, 2006